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I	Computed i	True i	V.
s	s	s	
1·84	1·34	1·38	−·04
1·81	1·32	1·35	−·03
1·90	1·38	1·34	+·04
1·90	1·38	1·36	+·02
1·77	1·29	1·38	−·09
1·89	1·38	1·36	+·02
1·77	1·29	1·34	−·05
1·94	1·41	1·35	+·06

Thirty-five stars gave $[vv] = 1{\cdot}6427$, $m = 280$, and $\varepsilon = {}^{s}{\cdot}037$.

Twenty-two of these stars were time stars for which $\varepsilon = {\cdot}037$; the other thirteen were north of declination 70° and $\varepsilon = {\cdot}036$.

Thirty-five stars observed with the ordinary reticle gave $\epsilon = {\cdot}037$. Twenty-seven of these were time stars, and gave $\epsilon = {\cdot}036$; the remaining eight were north of 70° declination, and gave $\varepsilon = {\cdot}038$.

So far as the probable error of observation is concerned, there is then no difference between the two reticles. This probable error is undoubtedly made up of several components, but as the subject of this investigation was the comparison of the two reticles it is not necessary to separate them. No observations have yet been made to determine difference of personal equation. The greatest advantage of the dark reticle would seem to be in observations of *very* faint stars, for they would be observed in the same way as the other stars, whereas now they are observed with bright wires in a dark field.

Case Observatory, Cleveland, O. (U.S.A.)

Observation of the Total Eclipse of the Moon, 1902 *April* 22, *at Perth Observatory, Western Australia.*

(*Communicated by W. Ernest Cooke, M.A., Government Astronomer.*)

The total eclipse of the Moon was observed here by Mr. Johns with a 10-inch refractor on 1902 April 22. The following phases were noted :—

	h m s	
Beginning of totality	6 10 47	G.M.T.
End „	7 35 14	„
Last contact with shadow ...	8 47 34	„

It was cloudy for first contact, and there were passing clouds during last, but at the times of the other observations it was

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quite clear. Colour copper, very dark in centre, but bright near edges. Limb easily seen through telescope. No occultations.

Perth Observatory, W.A.:
1902 *April* 29.

Observations of Jupiter made at Mr. E. Crossley's Observatory, Bermerside, Halifax, during the months of July, August, and September, 1901. By Joseph Gledhill.

The following observations of the bands, spots, &c. on the surface of *Jupiter* were made with the 9-inch Cooke refractor (photo-visual). Owing to the considerable south declination of the planet and the unsettled weather it was impossible on any occasion to obtain a really fine view of the details of the markings on the disc. The highest power used was 240, but 150 was found to be most generally useful.

For shortness the dark bands and bright zones are designated as follows :—

a	the S. temperate band.	***f***	the S. tropical zone.
b	the S. equatorial belt.	***g***	the equatorial zone.
c	the N. equatorial belt.	***h***	the N. tropical zone.
d	the N. temperate band.	λ	is the longitude of the central meridian System II.
e	the N.N. temperate band.		

The one salient feature of the disc during the whole of the opposition was the dark broad double band just S. of the equator (S. equatorial belt). There was never any bright space distinctly seen between the components of this fine belt ; but, as in past years, the separation was best seen a little to the west of the preceding shoulder.

The red spot was not seen, but a faint grey wisp was once or twice glimpsed resting on the highest point of the ***f*** shoulder and bending south and westwards : this was probably the eastern end of the red spot or a marking connecting the eastern end with the ***f*** shoulder.

No warm colour and no distinct detail were seen in the equatorial zone ; indeed, there seemed to be a great sameness of tint or brightness over the whole disc ; no zone was notably brighter than any other away from the polar regions.

The N. component of ***b*** (S. equatorial belt) was usually darker than the S. one, and had many dark spots on it which projected a little into the bright central zone.

July 3, 10^{h}, $\lambda = 290^\circ$. A dark spot on the N. component of ***b*** central about $11\frac{1}{2}^{h}$ ($\lambda = 54^\circ$). ***a*** and ***c*** faint grey bands. Rough measures : the double dark band ***b*** $3''{\cdot}8$ in width ; the central bright zone ***g***, $3''\,8$ wide ; ***a*** $1''{\cdot}4$; ***f*** $2''{\cdot}3$; ***c*** $1''{\cdot}4$; ***h*** $3''{\cdot}2$.

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